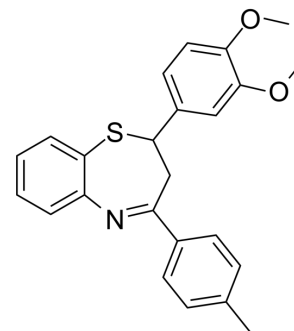


## $\alpha$ -Glucosidase-IN-21

Cat. No.:	HY-151145
CAS No.:	321686-01-5
Molecular Formula:	C <sub>24</sub> H <sub>23</sub> NO <sub>2</sub> S
Molecular Weight:	389.51
Target:	Glucosidase
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	$\alpha$ -Glucosidase-IN-21 (Compound 2B) is a potent, orally active $\alpha$ -glucosidase inhibitor with an IC <sub>50</sub> of 2.62 $\mu$ M. $\alpha$ -Glucosidase-IN-21 shows anti-diabetic activity <sup>[1]</sup> .								
<b>In Vivo</b>	<p><math>\alpha</math>-Glucosidase-IN-21 (Compound 2B; 10 and 20 mg/kg; p.o.; daily, for 4 weeks) has anti-diabetic activity in <a href="#">Streptozocin</a> (HY-13753)-induced diabetic rats<sup>[1]</sup>.</p> <p><math>\alpha</math>-Glucosidase-IN-21 (10 and 20 mg/kg; p.o.; once) significantly decreases the serum glucose level after the administration of glucose (3 g/kg, oral) in rats<sup>[1]</sup>.</p> <p><math>\alpha</math>-Glucosidase-IN-21 (2000 mg/kg; p.o.; daily, for 2 weeks) demonstrates no mortality in mice<sup>[1]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <table border="1"> <tr> <td>Animal Model:</td> <td>Male Wistar albino rats (170-200 g), Streptozotocin-induced diabetes model<sup>[1]</sup></td> </tr> <tr> <td>Dosage:</td> <td>10 and 20 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>Oral administration; daily, for 4 weeks</td> </tr> <tr> <td>Result:</td> <td>Decreased the level of blood glucose, reversed Streptozocin-induced body weight loss. Showed antihyperlipidemic effects on Streptozotocin-induced diabetes, reduced to a significant level of serum biomarkers.</td> </tr> </table>	Animal Model:	Male Wistar albino rats (170-200 g), Streptozotocin-induced diabetes model <sup>[1]</sup>	Dosage:	10 and 20 mg/kg	Administration:	Oral administration; daily, for 4 weeks	Result:	Decreased the level of blood glucose, reversed Streptozocin-induced body weight loss. Showed antihyperlipidemic effects on Streptozotocin-induced diabetes, reduced to a significant level of serum biomarkers.
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### REFERENCES

[1]. Mehmood R, et al. Synthesis of Novel 2, 3-Dihydro-1, 5-Benzothiazepines as  $\alpha$ -Glucosidase Inhibitors: In Vitro, In Vivo, Kinetic, SAR, Molecular Docking, and QSAR Studies. ACS Omega, 2022 Aug 17.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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